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Part II/Summary

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REPORT OF A REGIONAL SURVEY
ON MANPOWER AND TRAINING
NEEDS IN ALL TRANSPORT MODES

Part II Consolidated Report

EXECUTIVE SUMMARY

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REPORT OF A REGIONAL SURVEY ON MANPOWER AND TRAINING NEEDS IN TRANSPORT

PART II: CONSOLIDATED REPORT

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I. INTRODUCTION

1. In this Executive Summary is summarised the findings, conclusions and recommendations from the consolidated report on the Manpower and training Survey study on the five modes, namely, Road and Road Transport, Railways and Rail Transport, Inland Water Transport, Air Transport and Maritime Transport. The recommendations relate to the strategies for improving manpower and training situation in these various modes in Africa. Also presented herein are recommendations for implementing the proposals. This summary is accordingly set out under each of the modal headings.

II. SCOPE OF THE STUDY

2. The terms of reference for the study required that analysis be undertaken of the present situation in manpower and training needs and the direct or indirect effects on the performance of each of the five modes: preparation of inventory by mode, of areas where bottlenecks on manpower and training requirements are critical, and the evolution of proposals on how the existing and future gaps can be filled: the identification and analysis of the main constraints in manpower and training requirements by mode and an assessment of the future trend: description and analysis of the present situation regarding the training institutions, the positions with regard to the quality and quantity of their training facilities, determination of the levels and types of training programmes required by mode, identifying the target group to be trained and curriculum for each training category and target group: and evolution of short and long term recommendations by mode on actions to be taken at national, subregional and regional levels by government ministries, transport agencies, and training institutions to improve the present and future situation in meeting the demands for manpower and training needs in transport.

3. In undertaking this project, detailed studies by mode were undertaken involving field missions, to various member States, as well as comparative analysis of available data. The result of these have now been consolidated into one major report with each of the sections dealing with each of the modes.

III. ROADS AND ROAD TRANSPORT

(a) Institutional framework

4. For sometime to come the road is likely to remain the dominant mode of transport in Africa. Yet the road network system remains comparatively underdeveloped in terms of reach, network density, design standards and surface conditions and will require extensive investment by states for upgrading and maintenance.

5. A pre-requisite for an effective roads department is the development of appropriate institutional organs that are able to execute the functions of planning, surveying, design, materials management, construction, maintenance, research and administration.

6. It is recommended that at national levels, appropriate and relevant authorities should review existing institutional arrangements with a view to establishing or strengthening the functional groups of operations, roads planning, survey and design, materials research, construction, maintenance and administration divisions.

7. It is further recommended that the competent authorities review the structural set up at ministerial levels with a view to streamlining responsibilities for various functions. A central Manpower Control Unit, to be established, should be assigned responsibilities for manpower planning and utilisation.

8. The road transport industry revolves around individual road transport companies. In cases of private ownership organisation structures are geared towards profit making objective. While those owned by the states operate on a social welfare facility basis. In both cases, there is little evidence of attempts to formalise the institutional arrangements to cater for the broader objectives of resource utilisation and management.

9. It is recommended that appropriate steps be taken to institutionalise policy framework which would provide guidelines for manpower planning and development.

10. The study identified the following shortcomings in the organizational arrangements for road transportation:

(a) The greater emphasis placed on administration rather than management of road systems

It is recommended that African countries should make concerted efforts to professionalize their ministries of transport and/or works by employing more transport specialists.

(b) The ineffectiveness of existing machinery for policy making, planning and co-ordination.

There should be effective co-ordination among the various modes.

11. In addition African countries should evolve clear, co-ordinated and comprehensive national transport policies, giving specific and strategic guidelines to transport development.

12. It is also recommended that while African countries are taking steps to upgrade and rehabilitate the road networks, such action should include a manpower component, that is, the built-in-provision for development of skilled manpower.

(b) Manpower utilisation

13. The bad state of infrastructure is exacerbated by shortage of professional staff, particularly experienced engineers in design, construction management, planning and maintenance. Ministries are unable to retain well qualified professionals because of the generally poor working conditions, low salaries, lack of incentives and inconsistent promotional policies.

14. One way of improving the manpower utilisation in ministries is to evolve an improved scheme of service, introduce incentives, base promotions on known personnel policies which give weight to qualifications, training and performance. Professional staff should be offered competitive salaries.

15. The study revealed that most of the ministries concerned with roads and road transport hardly undertook any formal manpower planning, or appraisal of staff performance.

16. It is recommended that the Central Manpower Control Unit, should take appropriate steps to ensure that manpower forecasts and projections for the needs of road transport are prepared within the context of manpower plans.

17. In addition, staff performance appraisal schemes should be introduced. These should form one source of identifying training needs of staff on a continuous basis.

18. At ministry level, it was observed that a rather large number of expatriates are employed to cater for the shortfall in professionel staff.

19. Whereas this is an acceptable stop-gap measure, it should be considred only a short term measure, and steps should be taken to select counterpart local staff who should be exposed to all the professional practices and functions with a view to taking over from expatriates.

(c) Training activities

20. With respect to road transport industry, about 50 per cent is in the hands of private enterpreneurs. In majority countries, there is little or no training available personnel employed in the private enterprises.

21. It is considered that their performance would be improved if some short training programmes in specific areas of road fleet operations and management are periodically organized for them.

22. Since the number in the category of senior managers, professional and technical staff number only about 5 per cent, appropriate courses should be organised at national level under the auspices of the ministry responsible for transport. This should be co-ordinated by the proposed central manpower control division at the ministry.

23. With regard to road infrastructure, planning, maintenance and menagement, it is observed that limited use has been made of such subregional institutions like ESAMI.

24. It is recommended that greater use be made of ESAMI which organises a veriety of courses in transport.

25. It has been shown that most professionals receive their postgraduation training on the job or through fellowship financed attachment to oversees firms. This type of training has been effective, and it is recommended that continued use be made of these arrangements.

26. In many African countries the overall management of the training function is poor with the responsibility for activities fragmented between personnel and technical units. Budgets for training are often non-existent or inadequate, leading to poor manpower utilisation.

27. It is recommended that in those ministries where there are no training units, urgent measures be taken to establish the same and should work in close liaison with the central manpower control units. The training unit should have the responsibilities for budgeting, planning and managing training activities.

28. Training plans should be within the training policy framework and should be implemented as an integrated scheme within the personnel policies governing career development and promotional programmes.

29. Many of the ministries responsible for road infrastrucutre are unable to offer training to lower and middle management staff despite the existence of some in-house facilities for skill development. Often this is due to inadequate financial allocations, poor training equipment and shortage of qualified trainers.

30. As a way of alleviating these problems, it is recommended that loans for infrastrucutre development, rehabilitation and maintenance should as far as possible contain a training component and that this component should be utilised to support the in-house training activities.

(d) Training facilities

31. The most unique feature of training in road and road transport industry is the absence almost anywhere in Africa, of institutions solely devoted to managment, professional and administrative courses. The only exception is in Tanzania where the National Institute of Transport in Dar-es-Salaam is well developed.

32. It is recommended that efforts be taken towards establishing at least one institution at national level to cater for each country's training needs in the industry.

33. In-house training institutions are a very useful vehicle for meeting training needs where organisations employ large numbers to carry out routine tasks and where there are many entrants joining organisations each year.

34. It is therefore recommended that at departmental or organization level these in-house facilities should be reconditioned and re-activated to provide more task oriented basic skill upgrading courses.

35. They should be accorded adquate physical facilities, training materials and skilled trainers. Such trainers need not be full time, but should be selected from in-servicing staff and be put through basic trainers course in methodology and pedagogics.

36. Most of the countries covered in this study have at least one institute of public administration and management. These institutes do organise general management courses for senior, middle and junior managers. They also offer long courses in Accountancy, Administration etc. leading to recognised professional qualifications.

37. It is recommended that greater use be made of these institutions for development of general management and professional capability.

(e) Training requirements

38. Many of the larger road transport enterprises, both state and private owned are facing serious managerial problems. Training of the top and middle level management in specific areas of road transport management is one of the inputs urgently required to steer them back into high productivities.

39. In the Transport and Public Works Ministries as well as public transport companies, adequate training is required for transport planners, transport engineers, traffic managers, transport economists, mechanics, drivers and traffic operating personnel.

40. The following three broad groups of trained personnel have been identified for training:-

(a) Those needed in the ministries of transport, works and planning;

(b) Those in public passenger and goods transport companies;

(c) Those in road maintenance specialization - here the critical factor is the lack of technicians.

41. It is recommended that:

(i) Priorities be given to the training of transport economists, transport planners, public and goods transport personnel and some senior administrators (in various ministries of transport and works) preferability at subregional institutions like ESAMI.

(ii) As an interim measure and to augment other training measures, it is recommended that a special fund be created to finance a technical advisory service programme within the Decade programme. This would not be permanent feature but would be placed on-the-job training and demonstration projects;

42. Finally, it it recommended that appropriate in-house or tailor made courses covering the following topics be organised for the managerial, and technical staff.

Roads

- Construction projects management
- Construction arbitration
- Project implementation
- Road maintenance planning and management
- Transport investment planning
- Management of road safety programmes
- International procurement and contract negotiations
- Information system for planning and management in transport

Road Transport

- Physical distribution management
- Rural transport planning and operations
- Transport investment planning
- Operations maintenance and management of road transport fleets
- Management of road safety programmes
- Marketing of transport and travel services

For both Roads and Road Transport

- Senior level roundtable on transport policy
- Trade facilitation and documentation improvement
- Human resources management and development
- Advanced general management
- Industrial relations
- Manpower planning

- Stock control and warehouse management techniques
- Purchasing and supplies management
- Inventory forecasting techniques
- Financial management
- Accounting and finance for non-finance managers
- Financial planning and control
- Investment management

(All the courses enumerated above are regularly run at ESAMI)

IV. RAILWAYS AND RAIL TRANSPORT

(a) Institutional framework

43. The study established that the railways continue to be one of the most important means of inland transport accounting for upto 80 per cent of all inland freight movements and upto 50 per cent of passenger movements. Despite this, the railways showed poor economic and operational performance. This can be attributed partly to the ageing rolling stock and partly on economic constraints and inherent manpower problems.

44. All the railways in Africa are owned by respective governments, through appropriate ministries. They have the responsibility of formulating railways transport policies and for establishing adequate machinery for policy implementation.

45. It is recommended therefore, that at national level, a central manpower control unit be established which will, amongst others perform overseeing function with regard to manpower policies formulation and implementation.

46. The study also showed that many African railways have embarked on rehabilitation and modernization programmes for infrastructure and rolling stock.

47. It is recommended that at the same time with these programmes attention should be paid to:

(a) Design and evolution of suitable manpower plans within the broader manpower policy:

(b) Integration of training policy with the broader organizational personnel policies:

(c) Establishment at the organizational level of a Human Resource Department with two subunits for:

- training
- human resource development.

48. The survey revealed that problems arising from inadquate institutional structures and policies had a great impact on the performance of the railways. There is therefore urgent need to institute certain institutional adjustments, including:

- Creation of well-balanced organization structure to meet the management requirements in terms of management, finance, materials and operations;

- Definition of a legal basis for the application of a consistent manpower and training policy;

- Formulation of sound management policies and systems to meet the foregoing requirements;

- Creation of appropriate manpower infrastructure such as job descriptions, manpower plans, staff development plans, and performance appraisal systems.

- Preparation and implementation of operations, financial and administrative manuals which specify procedural requirements for various management functions such as recruitment and promotions.

49. To provide a basis for focussing attention to critical areas with bottlenecks, and to establish standards of performance for job positions, it is recommended that the following measures be taken by the Human Resources Division in each of the railways organisations:

- Job analysis to provide the necessary job requirements in terms of skills and proficiencies;

- Setting up of performance standards for each job together with key performance indicators;

- Standardisation of establishment levels commensurate with the key performance indicators;

- Establishment of proper schemes of service;

- Preparation of career development programmes within the requirements of the scheme of service.

50. In certain situations the survey showed that some of the externally generated problems breed inefficiency. Situations where top management is hemmed on all sides by rigid government control, allowed very little flexibility for dealing with the dynamics of changing environment.

51. It is recommended that the government authorities consider creating conditions which permit the existence of a mix of institutional features which allow effective autonomy to plan and adapt institutional strategies.

52. The study observed that there were too frequent changes in top management positions. This had not helped to build a core of experienced and qualified managers. Railways are by and large fairly complex organisations.

53. It is recommended that top management be given enough time to learn the industry, its culture and demands by being accorded longer tenures through minimising of such changes.

54. Cases exist of joint ownership of railways. In such situations, it was observed, political interferences had a negative effect on performance. It is recommended that prtner states should minimise such interference and instead should formulate policies to ensure that the organisation remains independent of direct influence of any one partner state and that the organisation justifies its own existence.

55. Furthermore, in cases of joint ownership with multinational workforce, steps should be taken to ensure that staff enjoy uniform terms and conditions of service.

(b) Manpower utilization

56. Overmanning and undermanning occur in many African railways at different levels. This is mainly because of absence of any manpower planning and poor manpower utilisation policies.

57. It is recommended that human resource development units (or manpower planning departments) having been established within the railways organisation, should, in liaison with the central manpower control unit evolve appropriate manpower plans which should have linkages with the succession or staff development programmes. Initially such a plan could be based on simple renewal approach.

58. The main areas with manpower shortages are the technical departments, at the levels of middle management, professional staff and technicians. These are in terms of numbers. Skill deficiencies are also pronounced in planning, supplies, personnel, marketing and accounting functions.

59. It is recommended that within the context of an acceptable manpower plan and with the job position requirements taken into account, qualified staff should be recruited from the market (i.e. graduates from universities) and be placed in planned training. Also selection should be done from in-serving staff to retrain best performers for eventual skill-up-grading.

60. Common to most African railways (except in Cote d'Ivoire and Cameroon), is the absence of any attempt to relate manning levels to key performance indicators such as traffic volumes, (passenger and freight), length of network, rolling stock etc. African railways should follow the example of European and North American railways where steps taken to relate manning levels to key indicators have paid off in the long run.

61. For senior and middle management as well as professionals, turnover appeared rather high mainly because the railways are now outcompated by transnationals which are able to pay higher salaries with better additional benefits.

62. It is recommended that to be able to retain qualified professional staff salary levels be reviewed with a view to creating some built-in flexibility for management to compete in the labour market.

63. The study brought out certain critical deficiencies in manning which arose either as a result of omission from establishment of certain vital positions or inadequate structures. The functions listed below should be given priority in establishment:

- Planning
- Marketing and commercial activities
- Management information systems
- work study and O & M
- Cost accounting
- Stores control.

Use of Expatriates

64. Many African railways do resort to use of expatriates to fill the vacancies created by manpower shortages at professional levels. These are sometimes retired railwaymen. However, it is recommended that where railways organisations resort to expatriates the following factors should be taken into consideration:

- Care should be taken during selection of relevant skill and experience;

- Counterpart local staff must be identified to work alongside the expatriates;

- Within the context of the manpower plan, there must be planned run down of expatriates.

(c) Training activities

65. Post-independence management of African railways placed emphasis on vocational training for technicians and low level staff rather than high level managerial and professional staff. It is recommended that a corporate training policy be evolved by each of the railways covering all categories of staff.

66. If training is to be effective, African railways must ensure that the personnel policies have strong linkages between career development and training. It is also necessary to link training to performance appraisal systems and promotion policies to motivate staff to make better use of training.

67. The impact of training that has been provided for senior and middle management and semi-professional staff has had certain shortcomings:

- programmes initially not designed to meet identified objective in terms of skill deficiency

- poor educational background of the trainees hence incompatibility of course content and individual ability

— inappropriate design of courses

- lack of qualified trainers for in-house programmes

- absence of any evaluation mechanisms.

68. It is recommended that all future training be based on identified training needs, and that in designing the courses, cognizance must be taken of the qualifications of individual trainees, and measures be taken to evaluate the effectiveness of the training. Identification of training needs must be seen as an on-going activity at these levels:

- organizational
- functional
- individual

69. Most training activities still lack policy framework and commitment of top management. For management training to be effective it is recommended that it should include:

- Training objectives and policy guidelines

- Responsibility for training

- Determination of training requirements

- Training plans and facilities

- Training budget

- Mechanics for evaluation

(d) Training facilities

70. Each of the railways administrations covered by this study has a training centre of some sort. In most cases they are for semi-skilled staff, clerical staff and artisans. Often they are not well equipped in terms of manpower, teaching materials and equipment.

71. It is recommended that because the existence of these training centres is a useful feature, measures be taken to rehabilitate them by providing adequate facilities in terms of equipment, physical facilities and trainers.

72. There are no specialised railway training schools in the region for senior staff. They have always been trained outside the continent.

73. It is recommended that active support be given to the proposed four sub-regional training centres at Brazzaville (Congo), Wardan (Egypt), Kabwe (Zambia) and Zaria (Nigeria). These will provide courses for senior management staff.

74. Up till now the only regional institution offering courses in Transport management is ESAMI. Majority of these courses are of 4-8 weeks and are fairly relevant to the railways management. African railways should make increased use of these courses as they are not only cheaper but are more relevant to the immediate environment.

(e) Training requirements

(i) Short term

75. In the short term it is proposed that organizations should concentrate on the basic foundation building through design and creation of sound intitutional framework.

(ii) Intermediate term

76. In the intermediate term (3-5 years) specific activities will have to be taken to improve performance of staff through training.

Senior management

Having evolved appropriate management policies, systems and procedures, senior management must be well prepared to implement and monitor them. Senior management programmes in form of seminars or workshops (lasting 3-8 weeks) should cover the following topics:

Action centred leadership
Work improvement methods
Human motivation
Delegation
Communication and management information systems
Use of computers
Group dynamics
Management accounting
Team building
Performance appraisal
Manpower planning
Training needs analysis
Problem solving
Decision making

In addition to the above general and conventional courses, the following subjects should be covered by workshops and in-house courses:

Transport economics
Management and operation of rail transport
Law and procedures governing transport
Study and analysis of transport policy
Transport statistics
Finance and financial analysis
Changes in railway technology
Commercial Activities of the railways
Co-ordination of rail transport activities
Preventive Maintenance
Costing

Middle management:

Seminars or workshops for this category should include the following topics:

Action centered leadership
Human motivation
Barriers to communication
Team building
Appraisal and coaching
Industrial relations
Job design
Discipline
Delegation
using computers
Report writing
Selection techniques
Negotiation skills
Problem solving
Decision making
Safety and accident prevention
Changes in railway technology

Professional oriented vocations

-Data processing Operations Management for Computer Applications
-Stock control and Warehouse Management for Stores and supplies Personnel
-Management Analysis and Operations Research for Planners and Administrators
- Production Management for Production/Maintenance Engineers
- Manpower Development for Personnel Managers
- Training of Trainers for Management/Supervisory Trainers

General

Organise a Railways Management Performance Improvement
Workshop for Senior managers.

(iii) Long term

Long term strategy lays emphasis on regional co-operation and evaluation of the effectiveness of measures taken at the first two stages. In addition, emphasis should be placed on reviewing the job position requirements with a view to updating the training needs at the three levels: organisational, functional and individual.

V. INLAND WATER TRANSPORT

(a) Institutional framework.

78. The inland water as a mode of transport has a great potential for early development which should provide carriage of industrial and bulk commodities and ease passenger problem at relatively lower costs than other transport modes. Yet the shortage of trained manpower seems to be a critical constraint to a more effective utilization of the existing waterways, equipment and port facilities in most African countries. The shortage of highly qualified personnel in addition to financial constraints, impede the further development of the inland water navigation.

79. It is recommended that concerted efforts be made to raise the level of training and manpower supply from that of a critical constraints to that of a mobilizing factor for inland water transport development.

80. The study showed that there is lack of co-ordination at national levels of activities of inland waterways and their utilization. To ensure such co-ordination, it is recommended that an inland waterways co-ordination authority be established at the Ministry responsible for transport.

81. As the availability of qualified personnel is one of the main factors determining the efficient management and operation of existing and future inland water transport facilities, it is recommended that appropriate action be taken as follows:

- -In the ministry responsible for transport, the IWT co-ordination division which will deal with IWT policy development, planning moderation of rules and regulations and dealing with investments: should be staffed with qualified personnel who should be able to implement policy decisions and monitor the performance of the mode.

- -At the inland water ports there should be a compliment of qualified personnel at management and operational levels.

(b) Manpower utilization

82. The following problems have been identified with regard to manpower utilisation and training:-

- -Personnel at professional and technical level employed in the inland water transport tend to command lower status when compared to those in the maritime transport:

- -In many countries the life and working conditions are relatively unfavourable for the crew and this tends to cause high turnover, making any efforts at training to be futile.

83. To ameliorate these problems, it is recommended that the terms and conditions of service of inland water transport personnel be harmonised with those of the maritime transport within the provisions of regulations in force.

84. It has been observed that the general level of education amongst the staff engaged in inland water transport is very low. This necessarily makes it difficult to prepare upto date training programmes. In addition, the success of any training depends on the calibre of the trainees.

85. To uplift the basic capability of inland water transport personnel, it is recommended that immediate measures be taken to prepare proper schemes of service which will lay down minimum educational and skill requirements for entry into each vocation. Such Scheme of service once implemented, should be strictly adhered to.

86. Owing to the absence of any manpower policies, the manning scales in the vessels are so arbitrary that they cannot be related to any criteria or indicator. Establishment and manning levels should be related to statutory requirements for sea going staff and key performance indicators for shore based staff.

(c) Training activities

87. The availability of qualified staff at managerial level must be given priority. In this instance, it is recommended that:

-A selection be made of those staff with the required educational qualifications and record of good performance in employment in inland water transport for the past three years and be sent for one year training in overseas institutions. Amongst the institutions recommended are Rhenania in Federal Republic of Germany, the French inland water institute at Strasbourg, and other relevant ones to provide them with basic grounding in modern management and operation of inland water transport.

-Short training sessions and seminars of one to three months be organized periodically in co-operation with identified developed countries, and with financial assistance from donor agencies. These would cover selected topics:

-Courses specially tailored to meet the requirements of inland water transport be organized at a subregional institution like ESAMI.

-Member States be encouraged to make use of existing inland water transport institutions like CTIIWT in Cairo:

-Eligible secondary school graduates be selected for long professional training on fellowships abroad. Such training should be about five years duration. At the end of such formal training the trainees should then be attached to inland water transport organisations for periods of up to one year.

(d) Training facilities

88. A number of national and subregional training establishments oriented towards maritime navigation have been doing useful work in the training of middle level personnel, in particular, in the area of craft operation and maintenance. This, however, is not a solution as it is in effect, a substitute for training in inland navigation. The only schools fully oriented on IWT are the Central Training Institute for Inland Water Transport in Cairo, and to a large extent, Inland Navigation School in Kinshasa, and the Centre for Professional Training in Bangui. At Kisumu, Kenya, the activities of the school were suspended in 1965.

89. It is accordingly recommended that in addition to those existing national and subregional training centres be reorganised along the following lines:

(a) CTIIWT, Cairo, Egypt

To offer courses in English for:

- river navigation
- vessels mechanics

(b) Inland Navigation School, Kisumu, Kenya:

To be reopened and should offer courses in English in:

- Vessel's mechanics
- Organization, planning and management of inland water transport

(c) Monkey Bay, Malawi,

The existing Marine Staff Training Centre to cater for:

- lake navigation
- vessels' mechanics
- Inland Water Port Management and Operation for English speaking countries.

(d) Bujumbura, Burundi:

Be established an inland water transport school for French speaking countries. The school to cater for:-

- Lake navigation
- Vessels' mechanics
- Inland water port management and operation

90. In general, and taking into consideration the great progress made in the construction of modern inland water vessels, the implementation of many sophisticated technical devices and changes in maintenance and operation, the existing inland navigation schools should be adapted to the modern systems while the new ones should be organised along the modern requirements.

(e) Training requirements

Management and Administrative staff

91. The main strategy in attempting to meet the training needs of the managerial and Administrative cadres is to update their theoretical and practical knowledge as well as professional skill in the field of inland water transport management, organization and planning. To achieve these broad objectives, it is recommended that courses covering three broad areas be organised either as workshops or courses lasting upto three months in the areas of:

- Economics of Water Transport:
- Organization and Planning of the Fleets and Ports Operations:
- Commercial Operations.

Techniciens

92. As the socialisation for this category of staff compare favourably with that of the maritime transport (sea-going) technicians it is recommended that in addition to IWT training institutions, use be made of those Maritime institutions which are already offering comparative courses. The courses, however, should be designed with the following factors taken into account.

(i) Proficiency requirements of inland water transport as contained in national regulations:

(ii) Educational and professional qualifications of the staff already in service:

(iii) Unique needs of inland water transport in contra-distinction from maritime transport

93. The programmes should be basically skill upgrading for performance improvement, and majority could be organised at the centres already identified subject to availability of qualified trainers.

Trainers

94. Training of trainers is an important and crucial element in the development of training systems in inland water transport. One approach which is proposed, is to select efficient and experienced middle managers and professionals and attach them (through arrangements) to certain overseas institutions offering courses in inland water transport. So far the following institutions have proven record of training in inland water transport.

Strasbourg- France
Pertershagen - Berlin, Federal Republic of Germany
Schonenbeck - German Democratic Republic
Wroclaw - Poland
Rostov - Leningrad, USSR.

Such training could be funded through fellowships on bilateral and multilateral terms.

9 5 A second approach is to recruit expatriate instructors for specific tours. To these

expatriates would be attached counterpart local staff to work along side for eventual take over. In selecting such counterpart potential trainers, it is strongly emphasised that basic educational and proficiency requirements be closely adhered to. During this period, they should also undertake preparation of teaching materials, aids, and suitable curricula.

(f) Seminar on IWT Regulations

96. The study revealed that there was considerably slackness in observing regulations rules and other requirements laid down by the relevant authorities. It is recommended as an urgent measure that short 3-5 days seminars be organized at national levels for managers, administrators and professional staff in charge of fleets, and ports to acquaint them with these rules and regulations, their interpretation and application.

VI. AIR TRANSPORT

(a) Institutional framework

97. Considering the enormity of Africa's size, the wide variation in topography, rough terrain, lack of well established surface transport, air transport is vital to the general inter-State links as well as intra-State transportation. However, the development and performance of air transport has been slow and has faced various problems. From the survey results it is evident that skill shortage, lack of professionalism and poor manpower policies have been part of contributing factors to this unfavourable situation.

98. The prevailing situation of overmanning and undermanning arising from poor manpower policies could be overcome through adoption by airline authorities of appropriate policies relating to manpower utilisation, properly designed manpower plans, and establishment of suitable manpower infrastructures.

(b) Manpower utilization

99. Skill deficiency in management, marketing and finance areas is common in most of the airline organisations in the region. As a result of this there is tendency to overstaff with unqualified staff. To alleviate this problems, it is recommended that African airlines should evolve manpower plans and suitable schemes of service for immediate implementation. In addition, properly conceived career growth plans should be adopted by the airlines so that skilled and experienced staff will be available at all times.

100. Air transport industry is very sensitive. It becomes all the more important, therefore, that all personnel at management level must update their skills regularly either through in-house training or through participation in externally organised programmes. To do these in a more systematic way, requires that airlines must carry out proper manpower analysis on a regular basis with a view to determining their development programmes.

101. As a guideline, it is recommended that the following procedures should be adopted in evolving an integrated programme on manpower development:

- Through job analysis, identify knowledge, skills, attitudes and experience necessary for successful performance of each job;

- Evaluate the knowledge, skills and attitudes of the incumbents;

-Identify the training gap:

-Prepare appropriate development programmes. These should incorporate in-house and on-the-job training aspects:

-Constantly review performance.

(c) Training activities

102. In most of the air transport organizations, training is given, on ad hoc basis without undertaking needs analysis and without analysing the manpower mix. Training is not accorded serious consideration. In some of the African airlines, overall training is not budgeted for, and there does not exist any records on whatever training has been offered.

103. It is recommended that training should be systematic, planned and relevant to identified objectives. Training should be budgeted for, and proper accurate records be kept of all training activities.

104. Training plays a key role in performance improvement and quality of service that is eventually passed on to the clients. In recognition of this importance, training results must be taken into consideration in cases of promotions and selection for special projects.

105. In most vocational areas observed, formal education has been found to be incompatible with basic job specification. Because these personnel are already in the jobs, it is recommended that intensive in-house programmes be mounted to upgrade their educational standards which in turn should enable them benefit from training programmes.

106. In many cases training is offered without its effect on performance being monitored. It is recommended that follow ups to training be done whether on a specific basis such as periodic evaluation, or through performance appraisal schemes. The impact of training must be evaluated on regular basis.

107. The study also showed that shortage of qualified instructors is a common problem in most of the African airlines. To alleviate this problem, it is recommended that use be made of outstanding line personnel who, after selection; should be put through an instructors course.

(d) Training facilities

108. There exist wide variety of training facilities in the region, ranging from one classroom to ultra modern set ups. But most of these are underutilised due to lack of qualified trainers, financial resources, equipment and training aids. These are general transport training institutions and do not necessarily have air transport courses in their curricula. As a result, there is overdependence by African airlines on overseas training for their management, professional and administrative staff.

109. It is recommended that the scope for utilisation of subregional, and national transport training institutions be widened. Measures should be taken, in conjunction with AFRAA, ICAO and the institutions to introduce the required courses with local flavour. Funding arrangements should be explored, especially with respect to subregional institutions.

110. The study revealed that licencing procedures vary from one country to another with regard to African airlines. As a result, the efforts of AFCAC, AFRAA and ICAO to standardise training and licencing have not completely succeeded though considerable advances have been made. It is recommended that AFCAC, AFRAA and ECA establish joint working committees to complete the standardisation process.

(e) Training requirements

111. The survey revealed that most African airlines paid more attention to technical training than management and administrative courses, as well as instructors. To create a balance in approach to corporate training, the following courses are recommended as appropriate:

Senior management

To undergo executive development programmes comprising such topics as:

- corporate planning, policies and regulations
- principles of management
- marketing, financial management;
- human resource management;
- planned maintenance
- computer applications

Middle management

Courses should cover the following:

- human relations
- communications, decision making, problem solving
- interviewing and counselling
- planning, scheduling, controlling
- managment by objectives
- performance appraisal

Administrative

Courses to cover the following topics:

- compensation planning
- management policies and procedures
- office management
- purchasing and materials management
- planning and conducting meetings
- work planning
- leadership skills
- report writing

Professionals and Technical Staff

-For pilots and aircraft technicians, training to be in accordance with AFRAA and ICAO syllabi.

- For trainers:

- basic teaching model
- the trainer and his job
- training needs identification
- lecture planning
- curriculum development
- managing the trainee

Commercial personnel

- ticketing as per AFCAC syllabus
- reservations as per AFCAC syllabus
- station handling AFCAC syllabus
- salesmanship for sales representatives

VII. MARITIME TRANSPORT

(a) Institutional Framework

112. Before intra-African and international trade can take major steps towards growth and expansion, the ports (with their transit significance for the landlocked countries) must become more efficient in terms of cargo throughput and ship turnround time. Despite commendable efforts by the governments of the region to develop and modernise their ports, the ports are still experiencing operational and management problems. Since several studies have shown that the ports have sufficient capacity, the reasons for poor performance must be in poor utilization of resources. These range from un co-ordinated port operations, poor manpower policies leading to lack of qualified and trained personnel, bad use of infrastructure, inappropriate organisation structures to poor co-ordination of multimodal aspects of transportation.

113. To be able to evolve more appropriate solutions to these problems it is recommended that competent and appropriate authorities review the institutional arrangements within which most of the port authorities and shipping lines in the region have to operate with a view to modifying them to meet the needs of the environment in which they are operating and to be able to fulfil the obligations for which they have been established.

(b) Manpower utilization

114. Skill shortage appears to be endemic in the maritime transport industry. The survey identified difficulties in acquiring and retaining skilled and competent manpower as a major constraint in the performance of the industry. There is evidence of gross over-manning at some levels and undermanning at others. There is no correlations between stocks and key indicators.

115. To overcome these problems it is recommended that urgent steps be taken to evolve sound manpower policies, prepare manpower plans supported by appropriate training plans and staff development programmes. Training plans should be within policy framework, implemented and monitored by well staffed training departments.

116. Little attention has been paid to the importance of basic qualifications and educational levels to fill key managerial and administrative positions. Consequently rather high percentage of staff occupy positions for which they are ill prepared. This could be attributed to the absence of schemes of service or non adherence to them where they already exist.

117. Because people placed in key managerial positions have to make important decisions qualifications must be given priority. It is strongly recommended that schemes of service be introduced and adhered to.

118. There is little evidence to show that any economies in manning have been realised as a result of adopting modern and technologically advanced operational methods or systems such as containerisation.

119. Manning scales should be related to technological requirements, and where applicable, attention should be paid to key performance indicators as one of the important determinants of manning levels.

120. The survey confirmed that whilst ports and shipping lines are engaged in modernizing efforts to cope with expected trend in traffic, they lack matching plans for manpower development both in skilled manpower capability and utilization strategy. Modernization and improvement or expansion of infrastructure and equipment should go hand in hand with planned manpower utilization supported by staff development component.

(c) Training activities

121. The study confirmed that there is inadequate training, particularly, planned, systematic and relevant programmes. Where training has taken place, these have to a large extent been given little attention or secondary position in budgetary considerations or in operational priorities.

122. Training programmes should be systematically planned, geared to meet known objectives and be made part of operational or management processes. The programmes should be budgeted for and commitment of top management elicited.

123. As formal education level has definite continuous effect on the requirements of training programmes, such programmes should be designed with levels taken into account. This will make training relevant and appropriate to target population.

124. Apart from on-the-job training, managerial, professional and technical staff have attended seminars, short courses, conferences and study tours. These have been facilitated by the availability of fellowships from various agencies such as IMO, UNCTAD, UNDP, ILO, NORAD, SIDA, EDI, and British Council. To a large extent they have been useful and it is recommended that the trend should be continued.

125. With regard to inhouse courses, or external at national or subregional levels, the course contents are rarely related to job requirements with the result that invariably there is little relevance of the programme to the job. Such courses are treated as one off event without the learning filtering back into organisations' operations.

126. Training programmes should be closely related to identified needs, which process should be an ongoing one deriving from performance appraisals. Curricula should then be designed in relation to job requirements thereby providing built-in continuity and relevance.

127. There is shortage of skilled and qualified trainers who can develop courses specifically tailored to meet the unique needs of maritime transport. Although commendable efforts of UNCTAD through TRAINMAR project a core of course developers are now available in the various TRAINMAR centres, the shortage is still critical.

128. It is recommended that a pool of skilled and competent trainers be developed at each of the subregional maritime institutions. Such a pool would be made available for the ports and shipping lines within the region. Such pools would also function as consultancy teams and be available to assist national institutions in course development and training of trainers.

(a) Training facilities

129. There is a glaring underutilisation of existing maritime training institutions. It is recommended that potential trainers be identified from the national ports and shipping lines and from local maritime transit organizations and be put through intensive instructors courses. This step would avail, at least skeleton staff to enable some of these centres commence meaningful operations.

130. There are many training institutions within the region offering various forms of maritime training at various levels. Their activities are both fragmented and un co-ordinated. It is recommended that these institutions be categorised as sub-regional (level 2) and national - (level 1). Those recommended to be convered into subregional institutions are the following:

Sub-regional	English Speaking	French Speaking
Eastern and Southern Africa	Bandari College Mombasa, Kenya	Maritime Training Institute Majunga, Madagascar
West and Central Africa	Regional Maritime Academy, Accra, Ghana	Maritime Institute Abidjan, Cote d'Ivoire
Northern Africa	Arab Maritime Transport Academy Alexandria, Egypt	Regional Arab Institute for Ports and Shipping, Tunis Tunisia

The sub-regional maritime training institutes should offer integrated courses for senior, middle managers as well as nautical based courses.

131. It is also recommended that sub-regional institutions and the national institutions should co-operate in the field of training and performance improvement through exchange of materials, exchange of trainers and attachments.

132. Steps should also be taken to review the terms of service of professional staff in most of the maritime training institutions. Staff development plans for these staff should be prepared on long term basis and implementation monitored on regular basis.

(d) Training requirements

133. Considerable work has been done by various agencies in the field of training. However, because they have been fragmented or ad hoc, the results have not been to expectation. Few courses have been organised which cater for the needs of both shipping and port managers. Such integrated courses would be very useful as they would bring the managers involved in port operations to look at port problems from a focal point.

Short and intermediate term

134. It is recommended that the following courses for shipping and port managers be organised on integrated basis and be held at selected sub-regional maritime training institutions:

- Container operations and planning
- Cargo operations
- Maritime safety and pollution control
- General port management
- Fleet management
- Shipping economics and accounts
- Voyage planning and scheduling
- Port pricing
- Maritime regulations and shipping law
- Multimodal aspects of transportation
- Computer applications
- Chartering
- New developments in ports and shipping.

TRAINMAR developed courses and the IPP courses have proved very useful for the middle managers and supervisors. Whilst it is suggested that increased application be made of these courses, it is also recommended that the idea of introducing a MODEL BERTH as a means of isolating non-training problems from those that are purely training be implemented. the introduction of a model berth, to the extent that it acts as control, is also a practical way of evaluating the effectiveness of courses on job performance.

It is recommended that for the next five years, the following training be offered to the various categories of manpower to meet the identified needs:-

A. PORTS

(i) Senior management

Key issues for the senior managers are how to cope with technological advancements increased investments in equipment and infrastructure, manpower utilisation, control

systems, containerisation effects, pricing of port services and legal implications of various maritime policies and legislations. The managers therefore will require courses that will enable them to deal with the above issues with competence and confidence. Courses covering the following topics, and of duration of 3 to 8 weeks will be necessary:

-New developments in ports and shipping
- Multimodal aspects of transport
- Maritime regulations and law
- General port management
- Container terminal operations planning and management
- Port pricing
- Pollution control and maritime safety
- Equipment maintennce
- General Cargo operations
- Computer applications
- Manpower planning
- Industrial relations
- Financial appraisal and planning
- Management information systems

(ii) Middle management

Middle managers include functional specialists in various departments but exclude (in this context) such professional specialists as accountants, economists and engineers.

Key issues in their day to day performance include need for conceptual tools and also the strengthening of their supervisory ability. They will require courses designed to improve their skill proficency and managerial competence. They will therefore require two broad group of courses.

(a) Diploma or postgraduate courses specifically tailored to their various areas of specialisation or (in most cases), broad based diploma courses covering various aspects of port activities.

(b) Short general management courses of upto five weeks including the following subjects:-

- Cargo handling
- Container terminal operations
- Management information systems
- Port pricing
- Manpower planning
- Purchasing and supplies procedures
- Port policing and security
- Health and safety
- Documentation
- Industrial relations
- Multimodal trnsport

(iii) Junior management

These include supervisors, and are the personnel who should be prepared to move into middle management positions. The junior managers training strategies should be twofold:

-One based on identified career development pattern. These should be oriented to future role based on manpower plan long-term objectives.

- The short performance improvement courses.

The short courses, of upto three weeks, should include the following topics:

- Industrial relations
- Supervisory role
- Port statistics
- Budgetary control
- Planned maintenance
- Management principles
- Safety in the port

(iv) Port Accountants and Auditors (Professional)

In addition to the general management courses already recommended for middle managers, the accountants would require skill upgrading courses to cover specifically:-

- Port pricing and tariff maintenance
- Statistics
- Financial planning and cost control
- Computer applications
- Management information systems

(v) Economists, Port Planners and Statisticians

Key issues for the performance improvement for this category are: the need to have reliable data base for planning, port planning techniques, nd traffic projection techniques.

In addition to middle management courses, they will require specific courses on:-

- Port economics
- Manpower planning
- Quantitative methods
- Traffic forecasting
- Environmental planning
- Computer applications
- Management information systems
- Port planning (TRAINMAR developed)

(vi) Herbour Pilots, Hydrographers and Marine Engineers

In addition to general management courses for those in managerial positions, skill upgrading courses specifically designed for this group would include:

- Changes in relevant international regulations
- Protection of marine environment
- Review of new technology relative to ship operation
- New maritime technology

Basically these programmes are to be designed to help these officers remain current in their specific areas of operations and in the maritime field in general.

(vii) Technicians (FTC)

Basically this category includes only those technicians who have attained the level of Ordinary National Diploma (OND); Part III of the City and Guilds or Full Technological Certificate.

They will require mainly planned maintenance courses. These would cover various areas such as:

- Civil engineering maintenance
- Mechanical, mobile and other cargo handling equipment
- Electronics
- Electrical installations, etc.

Because each port has its own unique features in terms of infrastructure, equipment and plant, these courses should as far as possible be tailor made in-house and be task oriented.

B. SHIPPING

(i) Shore Based Personnel

This category of personnel are involved in such activities as negotiation, broking, fleet management, accounting, cargo claims, chartering, etc.

Many of these courses in general management would also be very relevant to the senior and middle managers in the shipping lines.

In addition to integrated courses, the following specific topics would be appropriate:-

I. Senior Management

- Shipping trends and development
- Financial arrangements
- International maritime regulations
- Scheduling and routing techniques
- Voyage planning
- Protection of shippers' interests
- Investment analysis and appraisal
- Computer applications
- Shipping economics
- Industrial relations
- Multimodal transport

2. Middle management

- Financial management
- Voyage planning
- shipping accounts
- Shipping economics
- Computer applications
- Systems analysis
- Conference procedures
- Chartering
- Broking
- Documentation
- Insurance
- Marketing

3. Junior Management

- Shipping accounting
- Documentation
- Stock control
- Industrial relations
- supervisory role
- Storage
- Introduction to computers
- Customs regulations
- The port and its users

(ii) Sea-going Personnel

The training for sea-going personnel is governed by international conventions and regulations. In addition these are in accordance with national maritime regulations obtainable in each country. The states should increasingly make use of the places available in African training institutions offering courses in maritime and nautical based courses.

C. MARITIME TRANSIT SERVICES

It is considered that to have a total approach to performance improvement in the port, the maritime transit services (clearing and forwarding companies) must also be brought within the framework of proposed training strategies. The following courses are considered vital for various categories.

The senior and middle managers should benefit from general management and integrated courses.

Operational Personnel

- Basic import, export and shipping procedures
- Document preparation and processing
- Method of cargo handling and storage

- Client relations
- Customs procedures, regulations and tariffs
- International trade, insurance, law and banking

Accountants

- Specialized accounting skills
- Computer applications
- Systems analysis
- Data collection and maintenance

Long Term (beyond 5 years)

135. The longer term time frame envisages the full operation of the main recommendations on the utilisation of existing training facilities. The following activities are considered necessary to be undertaken during this phase:-

(a) Evaluation of measure of achievement on institutional adjustments as suggested under short term phase;

(b) Monitoring of the performance of built-in evaluation systems such as the performance of the model berth;

(c) Ensuring that sub-regional institutions, as recommended should be operational, and in particular, nautical based courses are offered at subregional level within the proposed framework;

(d) Expansion of TRAINMAR and IPP activities;

(e) Training of trainers and development of training materials;

(f) Strengthening of the sub-regional pool of instructors;

(g) Establishment of formal mode of co-operation between the sub-regional institutions;

(h) Strengthening and reactivating the role of the Port Management Associations in training activities by canvassing for fellowships and commissioning specific studies on performance improvement in specific areas;

(i) Organizing a seminar or symposium for trainers to review the performance vis-a-vis short term and intermediate term activities.